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Via Hand Delivery

October 20, 2009

Marchant Schneider, Project Manager Loudoun County Department of Planning 1 Harrison Street, S.E., Third Floor Leesburg, Virginia 20177

Reference:

SPEX 2009-0020/CMPT 2009-0006 - Loudoun County Sanitation Authority

(d/b/a Loudoun Water) Water Storage Facility

Dear Mr. Schneider:

On behalf of Loudoun Water, please find enclosed the following materials submitted in response to staff's first referral comments:

- 1. Eleven (11) hard copies of the Applicant's response letter dated October 20, 2009.
- Eleven (11) hard copies of the revised Land Development Application (LDA) form. The
 form has been revised to add a request for a special exception for a public utility use in
 the Floodplain Overlay District and a minor special exception for a modification to the
 buffer requirements.
- Eleven (11) hard copies of the revised SPEX Statement of Justification. The statement
 has been revised to add justification for the above referenced additional special
 exception and minor special exception requests. One (1) blacklined version is also
 included.
- 4. Eleven (11) hard copies of the revised SPEX Plat package dated October 19, 2009;
- 5. One (1) electronic copy of the revised LDA, revised statement of justification, response letter and revised SPEX Plat package.

Please feel free to call me if you have any questions regarding these resubmission materials. Thank you for your help on these applications.

cc:

Dale C. Hammes, Loudoun Water

Mark E. Peterson, Luck Stone Corporation

J. Randall Minchew, Walsh, Colucci, Lubeley, Emrich & Walsh, P.C.

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October 20, 2009

VIA HAND DELIVERY

Marchant Schneider, Project Manager Loudoun County Department of Planning 1 Harrison Street, Third Floor Leesburg, VA 20177

RF:

SPEX 2009-0020/CMPT 2009-0006

Loudoun Water Storage Facility, Response to First Referral Comments

Dear Mr. Schneider:

I am writing on behalf of the applicant, Loudoun Water, to respond to staff's first referral comments.

COMMUNITY PLANNING – response to memo dated September 17, 2009

Land use

Water & Wastewater Service

<u>Comment.</u> Staff recommends that the applicant demonstrate a commitment to the withdrawal of water only during normal to high flows to help protect the integrity of the Potomac River.

Response. Loudoun Water's commitment to water withdrawal from the Potomac River only during normal to high flows is demonstrated by the fact that "Water Banking" is a key component of its Central Water Supply Program. The whole concept of Water Banking — depositing water into a retired quarry when flows in the Potomac are normal to high, then withdrawing water from the quarry instead of the river in times of low flow or excess turbidity — is based upon Loudoun Water's interest in minimizing impacts to the river and to the water supply needs of other jurisdictions.

As a further commitment, the Interstate Commission on the Potomac River Basin (ICPRB) monitors water flows in the Potomac River. The ICPRB manages low flow withdrawals from the Potomac during times of drought through regional and interstate cooperation and partnerships. Loudoun Water has coordinated with the ICPRB over the last eight years with regard to plans for its Central Water

Supply Program, and has committed to following ICPRB water withdrawal directives in times of low water flow in the Potomac River.

As with all components of Loudoun Water's Central Water Supply Program, the withdrawal of water from the Potomac River will be subject to approval by the Virginia Department of Environmental Quality and the Army Corps of Engineers as part of the Joint Permit approval process. Protecting the integrity of the Potomac River as a water resource is an objective of the process and will influence the decision of state/federal reviewing agencies.

Green Infrastructure

River and Stream Corridor Resources

<u>Comment.</u> Staff recommends that the applicant depict the limits of the floodplain on the plat so that floodplain accurately reflects the topography and hydrology of the area.

Response. Consistent with County requirements, the Applicant has shown a delineation of the topographic and floodplain line based on County data. The Applicant is not proposing any changes to the grading or topography within the special exception area but merely proposing to add water to an existing mined area once mining operations are completed. Further, a current delineation of the floodplain limits based on a formal study of present site conditions would be premature as mining operations are expected to continue for a period of several years. Lines today would no longer be accurate when mining is complete at the quarry.

Scenic Rivers and Trails

Comment. It would be desirable if the applicant would allow visual access to the reservoir from both the W&OD Trail and any future trails along Goose Creek or other portions of the Luck Stone property. The applicant should coordinate with Luck Stone Corporation, the County Parks, Recreation, and Community Services Department, and the Northern Virginia Regional Park Authority regarding visual access to the reservoir from the surrounding trails and the construction of an overlook along each trail, which could include benches and interpretive signage. Interpretive signage could alert people to the presence of the reservoir and explain the history of the quarry, the significance of the mineral resources and other surrounding natural features, and the basic design of the water supply system.

Response. The Applicant will coordinate with Luck Stone Corporation and public agencies if a decision is made by others to provide trails or overlooks in the vicinity of the quarry. However, the design of the Quarry A water storage facility does not lend itself to public access, whether visual or physical. The water

storage elevation within the quarry pit is anticipated to be over twenty feet below the rim of the quarry and at least sixty feet below the elevation of the W&OD Trail. Quarry walls are steep and a ten foot tall barbed wire fence at the quarry rim is proposed for the purpose of preventing public access for both safety and security reasons. Additionally, other agency comments indicate a desire to retain existing trees and understory vegetation along the boundary of the W&OD Trail, further limiting visual access to the quarry. The Statement of Justification has been corrected to recognize that existing vegetation between the water storage area and the W&OD Trail is to remain and will, therefore, screen rather than provide visual access from the W&OD Trail.

Vegetation

<u>Comment.</u> The conversion of the existing quarry to a reservoir would limit the disruption to the area. To supplement the local habitat, help restore the quarry site, and to protect the water supply staff recommends that areas within the limits of the Special Exception not inundated with water be revegetated with appropriate indigenous vegetation. Staff recommends that any future improvements be constructed in a manner that causes the least environmental risk and visual disruption. Disturbed areas should be stabilized with native vegetation and new facilities screened with trees, berms, and/or shrubs.

Response. The Virginia Department of Mines, Minerals and Energy requires quarries to follow reclamation standards as a precondition to the release of the quarry permit. These standards include provision for regrading, resoiling and revegetation in areas where applicable and Luck Stone will incorporate these provisions as part of the reclamation process. As staff has stated, the addition of water to an already mined area will not create any environmental disruption to the area. The existing mature trees and vegetation just outside of the special exception area, along the embankments of the quarry will not be disturbed.

Steep and Moderately Steep Slopes

<u>Comment.</u> The project area features numerous steep and moderately steep slope areas, which are depicted on the plat. The application does not appear to disrupt any steep or moderately steep slopes.

Response. This statement is true that the application to fill the quarry with water will not disturb any steep or moderately steep slopes as defined by the Ordinance.

OFFICE OF TRANSPORTATION SERVICES - response to memo dated September 8, 2009

The Applicant confirms that the requisite right-of-way dedication along Belmont Ridge Road is a requirement of Luck Stone's special exception, specifically Condition 5 of SPEX 1990-0019. The Applicant also acknowledges VDOT Route 659 Project # 0659-053-262 relocates JackPit Lane to intersect with Builders Lane rather than Belmont Ride Road. The SPEX plat has been revised to indicate that the Applicant's future access easement will co-exist with the relocation of JackPit Lane, if such occurs.

ZONING – response to memo dated September 30, 2009

A. Critical Issues

1. Section 3-1005(E), Yards.

Response. The SPEX plat has been revised to show at least 50 feet between the special exception boundary and the property line.

2. Section 4-1506, Special Exception Uses

Response. The Statement of Justification has been revised to provide a justification for the proposed public utility use in a Floodplain Overlay District. It is noted that no changes to existing topography of the special exception property are proposed with this application. The steep embankment and access road to the west of the special exception area rises over 20 feet above the Goose Creek waterline and the established 100-year floodplain elevation is below the elevation of this embankment. For this reason and others discussed in the Statement of Justification, the Applicant is requesting a Floodplain Study Waiver pursuant to Section 5.410 of the Facilities Standards Manual.

B. Other Iss ues

1. Section 6-1310(D) - Whether glare or light that may be generated by the proposed use negatively impacts uses in the immediate area.

Response. The Applicant has no objection to the imposition of a condition requiring downward directed lighting.

2. Section 6-1310(F) - Whether sufficient existing or proposed landscaping, screening and buffering on the site and in the neighborhood to adequately screen surrounding uses.

Response. As noted below in response to Comment 10, the Applicant has revised the Statement of Justification to request a minor special exception to modify the requirements of Section 5-621 to allow the existing vegetation to satisfy the buffer requirement. Staff has noted that there is mature vegetation surrounding portions of the special exception area and that this vegetation screens the proposed use more intensely than the required Type 4 buffer in some areas. Those areas where vegetation does not exist are to the east, adjacent to other industrial and quarry-related commercial uses that are more intense uses than the proposed water storage use. Sufficient landscaping does exist to screen and buffer the future water storage use to the south, west and north, particularly in light of the fact that the ultimate water level elevation will be considerably below the quarry rim and not visible from Goose Creek, the W&OD Trail, or the properties to the north.

3. Section 6-1310(H) – Zoning staff deferred to the Environmental Review Team as to whether the proposed special exception will damage existing animal habitat, vegetation, water quality (including groundwater) and air quality.

Response. Acknowledged.

4. Section 6-1310(J) – Whether the traffic expected to be generated by the proposed use will be adequately and safely served by roads, pedestrian connections and other transportation services.

Response. It is anticipated that the use will generate one trip per day which will not tax the surrounding road system. Section 5-621 allows a public utility to be accessed via a private easement. The SPEX plat has been revised to more clearly depict the proposed access easement to be granted to Loudoun Water in order that the water storage area may be accessed. A note has been added to the SPEX plat which indicates that the future access easement will be co-located with JackPit Lane in its ultimate location. The Applicant has not included this area within the special exception area because adequate access pursuant to Sect. 5-621 is shown, the private road may be used by others for access and thus should not be included in the special exception, and lastly, as indicated in

the OTS and VDOT memorandums, the location of JackPit Lane may change in the future which would mean the SPEX plat would no longer show the correct access point.

The Applicant has no plans to utilize the existing tunnel under the W&OD Trail for secondary or emergency access.

5. Section 6-1313, Period of Validity. Staff suggests a longer period of validity be approved as part of this special exception.

Response. The Applicant requests the period of validity be stated as a maximum of 15 years.

Article 8, Definitions. Staff recommends revision of the definition of "Water Supply System, Central".

Response. Acknowledged.

7. Section 3-1003, Permitted Uses. Staff questions the future location of the water pump station.

Response. The future water pumping station will not be located in an area of floodplain or steep slopes and the Applicant has no objection to a condition to that effect.

8. Section 3-1007(D) Utility Requirements. Revise plat to specify that all utility distribution lines shall be placed underground,

Response, The SPEX plat has been revised to reflect this provision.

9. Section 4-1503, Definitions. (G) Utility Lines in the Floodplain.

Response. Acknowledged.

10. Section 5-621, Public Utilities. Staff notes that a Type 4 Buffer yard is required for a public utility.

Response. As staff has indicated, the modification is noted on the SPEX plat. The request for a minor special exception to Section 5-621 has now been included in the application and requests that existing vegetation be

permitted in lieu of a standard Type 4 buffer. There are several factors which have led to the request for a modification to the buffer requirements.

- The buffering requirements in Section 5-621 do not differentiate between a heavy public utility such as a sewage treatment plant and a use as proposed in this application which is storing water in an existing quarry.
- The same buffers that have provided screening for an active quarrying operation will remain in place for the more passive water storage use once the quarry has been retired.
- There are no structures associated with this public utility other than a water pump station which is a permitted use in the MR-HI District. Neither use will be visible to the north, south, or along Goose Creek to the west. To the north and south sufficient landscaping exists to screen and buffer future water storage in the existing quarry from surrounding uses, particularly in light of the fact that ultimate water level elevation of the future water storage facility will be well below the rim of the quarry. Existing vegetation along the northern and western boundaries of the parcel and the fact that the walls of the quarry are at higher elevations than the parcel boundaries in these areas insures that the proposed use will be screened from adjacent properties and Goose Creek. Existing mature trees and vegetation along the parcel boundary to the south will provide screening between the proposed use and the W&OD Trail.
- To the east, very little landscaping exists between the quarry and existing quarry-related commercial and industrial uses that are located on a hill above the quarry. Additional landscaping would be ineffective in screening the quarry from these uses because of the difference in elevation between uses. Water storage as proposed is the more passive use and it also does not seem necessary to screen this use from those that are more intensive. There is also very little activity associated with the proposed water storage use—possibly one vehicle trip per day for maintenance and inspection purposes. The impacts of this type of public utility are far less than those of all other public utility uses, so the Applicant requests that some discretion be used when applying the buffer requirements in Sect. 5-621. Further, as staff has noted, there is adequate vegetation and screening in most areas surrounding the special exception

area, "more intensive than the required type 4 buffer in some areas". The statement has been revised to include the justification for this modification.

11. Section 5-1100, Off-Street Parking and Loading Requirements.

Response. The SPEX plat has been revised to show a parking space in the southeast portion of the Property to accommodate required parking. It is anticipated that one employee may visit the site each day for maintenance purposes.

12. Section 5-1508, Steep Slope Standards. Staff recommends reviewing the locations of any proposed water lines through naturally occurring very steep slope areas for compliance with Section 5-1508.

Response. The Applicant acknowledges that compliance with the steep slope standards of the Zoning Ordinance will be required in the design and development of water line connections to the proposed water storage facility.

13. Reconcile quarry operations time frames noted on SPEX plat and Statement of Justification

Response. The SPEX plat has been corrected to state that quarry operations will be completed in the 2017-2020 timeframe.

14. On the SPEX plat, change the scale to one that can be measured using a standard engineer's scale.

Response. The original scale (1" = 120') was originally used to insure that all submission features could be reflected on a standard size plat sheet. Two additional sheets have been added to the plat (Sheet 2A and Sheet 4A) which provide Existing Conditions and the Special Exception Plat at a standard scale of 1" = 100'.

15. On the SPEX plat, page 3 in regard to Section 3-1007, delete letter (E).

Response. The requested revision has been completed.

16. Revise SPEX plat, sheet 3, to correct specified references for "Building and Parking Setbacks from Roads" and Building Setback from W&OD Trail", and Access from Major Roads".

Response. The requested revision has been completed.

17. On SPEX plat, sheet 4, revise legend to show symbols for moderately and very steep slope areas.

Response. The requested revision has been completed.

18. Revise Statement of Justification to clarify that a water treatment plant will not be located on the Application Property.

Response. The requested revision has been completed.

19. Review Statement of Justification for accuracy in referring to full visibility of the water storage use from the W&OD Trail.

Response. The Statement of Justification has been reviewed and modified.

ENVIRONMENTAL REVIEW – response to memo dated September 18, 2009

1. Staff encourages enhancing the forested buffer adjacent to Goose Creek.

Response. The special exception area which is proposed as a water storage facility does not include any areas outside of the rim of the existing quarry. Mature trees and vegetation just outside of the special exception area, along the embankment that is adjacent to Goose Creek will not be disturbed.

2. Staff recommends that utility lines associated with the water storage facility be depicted in area where the alignments minimize disturbance to trees, streams and wetlands.

Response. As with all components of Loudoun Water's Central Water Supply Program, the final alignment of the future water line(s) entering and exiting the water storage area is subject to approval by the Virginia Department of Environmental Quality and the Army Corps of Engineers as part of the Joint Permit approval process. Minimizing environmental

impacts is an objective of the process and will influence the final location that is approved by state/federal reviewing agencies.

3. Utility lines should avoid the stream and wetland mitigation project along Sycolin Creek.

Response. Loudoun Water will continue to coordinate with Luck Stone Corp. as the the wetland mitigation project along Sycolin Creek proceeds. As with all components of Loudoun Water's Central Water Supply Program, the final alignment of future water line(s) will be subject to approval by the Virginia Department of Environmental Quality and the Army Corps of Engineers as part of the Joint Permit approval process. Minimizing environmental impacts is an objective of the process and will influence the final water line location that is approved by state/federal reviewing agencies.

4. Staff recommends that floodplain studies and/or alterations be completed to update flood elevations and limits for Goose Creek, any possible spillage of Goose Creek into the storage area, and for the minor floodplain that drains from Route 659 to the northwestem edge of the property.

Response. No changes to the contours or topography of the special exception property is proposed with this application. The application is merely a request to add water and ultimately extract water in an existing mined area. The Applicant has shown a delineation of the floodplain based on County data. The steep embankment and access road to the west of the special exception area rises over 20 feet above the Goose Creek waterline. Along the Creek, the established 100-year floodplain elevation (226.30 based on the adjacent cross-section available on the County's GIS website) is below the elevation of this embankment (+/-235.00 per County GIS topography). Any current study/delineation of the minor floodplain within the quarry limits today would no longer be accurate when mining is complete at the quarry as a result of on-going changes to the topography within the quarry.

5. Staff recommends thorough and prompt assessment of "Wise Water Use" outcomes to quantify the demand reduction and project this reduction into the two 20 Million Gallon per Day (MGD) phases of the Central Water Supply. There is a similar recommendation on page 25 of the report. Staff recommends a prompter assessment that can be used to possibly reduce the expansion size of each phase and/or elimination of one phase altogether to minimize long term capital and maintenance costs.

Response. As with all components of Loudoun Water's Central Water Supply Program, the withdrawal of water from the Potomac will be subject to approval by the Virginia Department of Environmental Quality and the Army Corps of Engineers as part of the Joint Permit approval process. Water demand management is considered in the process. Water use projections are based on current County population and employment projections, and reflect anticipated reductions due to Loudoun Water's demand management program that is in it's first stage of implementation. The full effect of this demand management program will not be known until the program has been in operation and monitored for at least a period of five years.

Staff recommends that the Applicant consider storage, treatment and use of the Town of Leesburg effluent, currently permitted at 5MGD with a future expansion to 10 MGD. The effluent is treated near Tuscarora Creek and would require less static energy lift to transmit and store than river intake water. It would also be available constantly, not just during normal to high river flow intervals. This option was not considered in the Central Water Supply report.

Response. County staff may want to coordinate their comment with staff of the Town of Leesburg. The discharge of Town effluent within Loudoun County would require the issuance of a permit from the Virginia Department of Environmental Quality and require the Town effluent to meet higher water quality standards mandated by the Dulles Area Watershed Policy. At present the Town effluent is permitted by the State of Maryland for a discharge to the Potomac River which has a lower water quality standard. In addition, discharge of effluent to a public water reservoir (Quarry A) would be considered "indirect potable reuse" and would not be consistent with Virginia's water reuse regulation 99VAC25-740-10) which is based on non-potable reuse of effluent. Additionally, a Leesburg Today newspaper article dated September 17, 2009 indicated that the Town of Leesburg is in discussions with a developer for non-potable use of the Town's effluent.

VDOT - response to memo dated August 19, 2009

1. Right of way and easements should be dedicated at no cost consistent with listed road improvement projects.

Response. See response below.

2. A monetary contribution toward VDOT's Belmont Ridge Road Improvement project should be pursued by the County.

Response, This special exception for water storage is part of a larger proposal which includes a water treatment plant farther south and on the other side of Goose Creek. At the transportation scoping meeting held prior to the filing of these applications, it was determined that the traffic associated with the water storage in Quarry A was minimal being mostly maintenance visits occurring once a day. As part of the larger traffic analysis, it was determined that the trips generated by the entire proposal, including the water treatment plant with 20 employees, can be accommodated within the existing infrastructure and the intersection studied operate with acceptable levels of service. In addition to not owning the property which fronts on Belmont Ridge Road, the Applicant does not believe that an anticipated trip generation of one trip daily warrants right of way dedication and road improvement contributions. As previously noted, a 60 foot right-of-way dedication along Belmont Ridge Road is a requirement of Luckstone's special exception, specifically Condition 5 of SPEX 1990-0019.

NORTHERN VIRGINIA REGIONAL PARK AUTHORITY - response to memo dated August 28, 2009

Requirements.

1. The project sponsor shall not encroach onto park property unless the Park Authority approves a permit for the activity. Permission will be necessary for the two encroachments crossing the W&OD Trail.

Response. Acknowledged. Loudoun Water has worked cooperatively with the Northern Virginia Regional Park Authority in the past to obtain permission and permits for numerous waterline and wastewater line crossings of the W&OD Trail and other Park Authority facilities. The Applicant looks forward to a similar relationship as it implements the Central Water Supply Program.

2. The Applicant must demonstrate that water storage will not impact the W&OD Trail property and Goose Creek. Proposed methods to seal the existing tunnel underneath the W&OD Trail should also be provided.

Response. The Property has been a quarry since the 1880's and it became an unintended water impoundment area when Hurricane Agnes caused Goose Creek to overflow its boundaries and flood the quarry in 1972. The water remained in the quarry, above the elevation of Goose Creek, for approximately twenty-one years until Luck Stone Corporation pumped the water out in order to resume mining operations. No impacts to Goose Creek or to the W&OD Trail were experienced during the time that water remained in the quarry. Once the Luck Stone completes mining

operations in the 2017-2020 timeframe, water will again be stored in the quarry but the maximum water surface level will not exceed that of the current elevation of Goose Creek. Water levels will not exceed the elevation of the existing tunnel until the tunnel is sealed in a manner that is satisfactory to the Northern Virginia Regional Park Authority.

3. The plans should be revised to add a note that there will be no access via the existing driveway crossings of the W&OD Trail.

Response. The plans will be revised to reflect this note.

Recommendations.

1. Existing trees and understory vegetation along the park boundary and within the Scenic Creek Valley Buffer should be supplemented where appropriate.

Response. The special exception area which is proposed as a water storage facility does not include any areas beyond of the rim of the quarry. The existing mature trees and vegetation just outside of the special exception area, along the southern and western boundary lines, will not be disturbed and they screen the proposed use from the W&OD Trail and Goose Creek. The amount of screening and buffering required for this use should be commensurate with its impacts which appear to be minimal, if any.

2. The Applicant should consider allowing public recreational use of the water feature as part of this application.

Response. The use of Quarry A for water storage does not lend itself to public access within or around, whether visual or physical. The maximum surface elevation of water within the quarry is anticipated to be over twenty feet below the quarry rim and at least sixty feet below the elevation of the W&OD Trail. Quarry walls are generally straight and steep, and the proposed 10 foot tall barbed wire fence at the quarry rim is proposed for the purpose of preventing public access for both safety and security reasons. The use of a quarry for water storage purposes differs greatly from a water reservoir where steep slopes are not such an issue, where an actual shoreline exists and access to the water by the public may be much easier and safer.

PARKS, RECREATION AND COMMUNITY SERVICES

1. As a Condition of Approval, PRCS requests that the Applicant consider dedicating the proposed area for the "300-foot Permanent Conservation Easement" to the County for the purposes of a linear park along Goose Creek. This project property is vital for extending a trail along Goose Creek to connect with established portions of the Potomac Heritage National Scenic Trail and its trailhead at Keep Loudoun Beautiful Park downstream.

Should the Applicant be unwilling to dedicate the property, PRCS requests a condition that the Applicant construct a 4-foot wide natural trail within a 30-foot wide public access easement along Goose Creek within the 300-foot buffer, to be field located by PRCS Staff, similar to the Conditions approved with Play to Win Sports (SPEX 2007-0056). In addition, PRCS requests that the Applicant condition to provide pedestrian connections from the W&OD Trail.

Response. The area of the 300 foot buffer which is not actually within the quarry pit, is outside of the special exception area and not under the control of the Applicant for dedication or trail construction purposes.

2. PRCS recommended coordinating with the Northern Virginia Regional Park Authority (NVRPA) to provide a wayside (benches, etc.) along the W&OD Trail adjacent to the quarry with interpretive signage of the quarry history and water impoundment purpose and process.

Response. The Applicant will coordinate with Luck Stone Corporation and public agencies if a decision is made by others to provide overlooks or signage in the vicinity of the quarry. However property beyond the quarry rim is not part of the special exception application area. Further, the Applicant cannot commit to provide such improvements on property that it does not own. The statement of justification originally indicated that the quarry will provide a predominant visual element that can be enjoyed from the trail. More detailed investigation of future water storage plans revealed that the ultimate water level of the storage facility will be substantially lower than the top of the quarry rim, and this combined with existing vegetation effectively screens the proposed use from the W&OD Trail.

3. Staff requests the opportunity to explore potential recreational opportunities, within and around the reclaimed quarry, with the Applicant.

Response. The use of Quarry A for water storage does not lend itself to public access, whether visual or physical. The water storage elevation within the quarry pit is anticipated to be over twenty feet below the rim of the quarry and at least sixty feet below the elevation of the W&OD Trail. Quarry walls are steep and the proposed 10 foot tall barbed wire fence at the quarry rim is proposed for the purpose of preventing public access for both safety and security reasons. Additionally, other agency comments indicate a desire to retain existing trees and understory vegetation along the boundary of the W&OD Trail, further limiting visual access to the quarry. The Statement of Justification has been corrected to recognize that existing vegetation between the water storage area and the W&OD Trail is to remain and will therefore limit visual access from the W&OD Trail. The use of a quarry for water storage purposes differs greatly from a water reservoir where steep slopes are not such an issue, where an actual shoreline exists and access to the water by the public may be much easier and safer.

4. Please add a note to the Cover Sheet to reference the previously-approved Special Exception(s), including SPEX 1990-0019 and SPEX 1999-0006.

Response. These applications did not involve Quarry A. They were associated with the other quarries operated by Luckstone in the area. The only zoning action applicable to this property is a special permit approval in 1971. When the special exception for water storage becomes active, the quarrying activity will have ceased and thus, the 1971 permit will be null and void.

TOWN OF LEESBURG – response to comments dated August 28, 2009

The Applicant acknowledges that the Town of Leesburg has indicated that the current special exception and commission permit cover the use of Quarry A for water storage only and the Town has no objection to the use of Quarry A for water storage.

GOOSE CREEK SCENIC RIVER ADVISORY COMMITTEE – response to comments dated August 5, 2009

The Applicant acknowledges and agrees that both Loudoun Water and Luck Stone have coordinated with the Goose Creek Scenic River Advisory Committee and will continue that coordination throughout this project.

DEPARTMENT OF FIRE, RESCUE AND EMERGENCY MANAGEMENT- response to comments dated August 17, 2009

The Applicant will demonstrate adequate access and circulation for emergency vehicles at the appropriate time when the special exception is implemented.

DEPARTMENT OF GENERAL SERVICES – response to comments dated August 19, 2009 via email

Acknowledged.

LOUDOUN COUNTY HEALTH DEPARTMENT – response to comments dated August 6, 2009

Comments acknowledged.

Thank you for the opportunity to respond to the specific agency comments. Please give me a call if there are any questions regarding any of the responses.

Best Regards,

Lori Greenlief

McGuireWoods, LLP

cc: Dale C. Hammes, Loudoun Water

Mark E. Peterson, Luck Stone Corporation

J. Randall Minchew, Walsh, Colucci, Lubeley, Emrich & Walsh, P.C.



LOUDOUN COUNTY LAND DEVELOPMENT APPLICATION

- (1)
- This application form must be filled out in its entirety.

 An incomplete application form will result in rejection of the application prior to checklist review.

 If additional space is needed to complete any section of this application, attach a separate sheet containing all the required information and refer to such where appropriate on the form.

 Do not write in shaded areas.

 See attached Instructions for completing the Land Development Application.

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PROPOSED NON-RESIDENTIAL and non-residential components of square footage for the category:	L SQUARE FOOTAGE 7 fresidential applications.	his secti	on must be complete	ed for all no appropriate	on-residential ed category a	applications nd the total				
Category	Description of	Use	The second second	Market Control	Square Fo	ootage				
Ag-Residential		0.11111	700 700			Journe				
Sales & Service										
Office		HI.		7		HI S				
Industrial		U.,	-51 - 0000000000							
Gov't., Utilities & Public Service	Water Storage Tank)	in Exist	ting Quarry (Water	N/A						
Recreation & Special Interests		-								
Transportation & Communications					1000					
Education & Training										
Other (specify)	A110	-								
Total Square Footage										
	THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.	CT LOC	ATION		ALL CONTRACTOR	EXPERIENCE.				
Property Address: None	Goose	of the W Creek; a	/&OD Trail; east si approximately 1,1 nt Ridge Road, Rt.	djacent Roads Jackpit Lane, Belmont Ridge Rd., Rt. 659						
ELECTION DISTRICT(S) Broad Run District) sa lau		/5100m					
	PERTY TAX MAP, ACRE	AGE A	ND ZONING INFOR	MATION						
Tax Map Number(s) or Pin Number Reference(s)	Zoning District(s)		Acreage		Zoning xisting	Status Proposed				
MCPI 114-25-6156	MR-HI DI	AND THE	33.68 ac - SPEX		IR-HI	MR-HI				
1101 4 217-20-0130	PIK-III DI	isu itt	80.61 ac - Parce		IN"HA	14K-111				

	nding land uses and zoning districts LAND USE	aujacent to the pr	operty,	including those across roads.			
NORTH	Residential			ZONING			
SOUTH	W&OD Trail; South of W&OD Trail	- vacant	MR-H				
EAST	Quarry related commercial uses; a Ridge Rd, Rt. 659 - residential	cross Belmont		R-HI R-HI; across Belmont Ridge Rd. —			
WEST	Goose Creek; across Goose Creek	Vacant land					
		PPLICANT(S)	TR-1	-10			
Company Name	Loudoun County Sanitation	Company Nar	ne	多,对比较多的情况与思想是是想要的			
	Authority (d/b/a Loudoun	, , , , , ,					
	Water)						
Name of Person	Dale C. Hammes	Name of Pers	an 0				
Title	General Manager	Title	on &				
Mailing Address	44865 Loudoun Water Way						
City, State, Zip Co	ode Ashburn VA 20146	Mailing Addres					
Daytime Telephor		City, State, Zij					
E-mail Address	0.1.1.7700	Daytime Telep					
N. 600-0-37 1533	dhammes@loudounwater.org	E-mail Address	S				
Correspondent?	Yes No X	Correspondent	?	Yes No			
	PROPI	ERTY OWNER(S)					
Company Name	Luck Stone Corporation	Company Nam	e				
Name of Person &	Mark E. Peterson	Name of Perso					
Title	Manager	Title					
Mailing Address	P.O. Box 29682	Mailing Address	5				
City, State, Zip Co	de Richmond, VA 23242-0682	City, State, Zip					
Daytime Telephon	800.898.5825						
E-mail Address	mpeterson@luckstone.com	Daytime Teleph					
Correspondent?		E-mail Address					
	140 X	Correspondent	7	Yes No			
Company Name	McGuire Woods LLP	SENTATIVE(S)	USA TIP				
lame of Person &		Company Name	• 1				
itie	Jonathan P. Rak	Name of Person	· &				
failing Address	Attorney	Title	-				
	1750 Tysons Boulevard STE 18	00 Mailing Address					
ity, State, Zip Cod	7	City, State, Zip (Code				
aytime Telephone	703.712.5411	Daytime Telepho					
-mail Address	jrak@mcguirewoods.com	E-mail Address					
orrespondent?	Yes X No	Correspondent?	-	A			
STATE OF THE PARTY OF THE		IFICATIONS		Yes No			
rried out at my e	wided is accurate to the best of my kapurements of the Health Official, Directors. I understand that the County hat all property corners have been clearly	to. or building and D	evelopm	it any percolation tests, topographent, or Zoning Administrator will be tionally approve that for which I a			
u cci	anitation Authority, d/b/a Loudour		S21				
nature of Applican	Januar 10/19/09	Signature of Appl	icant	Date			
OPERTY OWNER ave read this comp the Department of	(S) (to be signed by all property owner, objected application, understand its intent, Building and Development and/or Planruch investigations and tests as they deer	and freely consent to	its filing zed gove	 Furthermore, I grant permission enter the 			
rk E. Peterson, I ck Stone Coppora	ition						
	ition	Printed Name of P	roperty C	Owner			

Statement of Justification CMPT-2009-0006 SPEX-2009-0020 SPEX-2009-XXXX SPMI-2009-XXXX

Commission Permit and Special Exception Application for Future Water Storage in an Existing Quarry (Water Storage Tank);

Special Exception for the Location of a Use Required for the Operation of a Public Utility in the Floodplain

Minor Special Exception Modifying Requirements for Required Type 4 Buffer

Parcel 29 (TM 61; MCPI# 114-25-6156)
Loudoun Water - Applicant
June 1, 2009
Revised October 19, 2009



Summary of Project Proposal

Loudoun Water (Applicant) proposes to use "Quarry A" (Property), an existing diabase rock quarry totaling 33.68 acres for water storage once mining operations are completed. This quarry comprises the special exception application area and is part of the 80.61-acre Parcel 29 located to the east of Goose Creek and north of the W&OD Trail. Other quarry- related commercial uses are located on the same parcel to the east and are not included in this special exception application.

Parcel 29 is zoned MR-HI as are adjacent parcels to the north and south, beyond the W&OD Trail. Existing residential and non-residential structures are located to the north while a second quarry, "Quarry B", is located to the south. Goose Creek is located between 70/150 feet west of the Property and forms the western boundary of Parcel 29. Jack Pit Lane, a private road, provides access to the Property from Belmont Ridge Road, Rt. 659 farther to the east.

Quarries A and B are part of Luck Stone Corporation's Leesburg Plant mining operation which also includes an approved, future quarry to the west, across Goose Creek. Loudoun Water has an agreement with Luck Stone Corporation to utilize Quarry A for water storage when mining operations have been completed, currently estimated to be in the 2017-2020 timeframe. Quarry A is a key component of Loudoun Water's Central Water Supply Program, as described below, and it provides the potential for Loudoun Water to store up to 1 billion gallons of water for future use in the area served by the Central Water Supply System.

Background

<u>Loudoun Water's Long-Range Planning Efforts to Satisfy Anticipated Needs for the Central Water Supply System</u>

Loudoun Water currently provides public water to residential and non residential customers within an area identified by Loudoun County as the Central Water Supply System (See Exhibit 1). Loudoun Water obtains 57 million gallons per day (MGD) of water to serve this area from Fairfax Water and the City of Fairfax. Loudoun County land use plans and related demographic projections have been used by Loudoun Water to forecast that more water will be needed to meet future demand in the Central Water Supply System by 2035-2040 (total estimate needed: 90 MGD) even as efforts continue to reduce peak demands through implementation of a wise water use program and proactive demand management strategies. On December 11, 2008, the Loudoun Water Board of Directors gave approval for the proposed Potomac River Water Supply

and Raw Water Storage Program ("Central Water Supply Program"), a two-phased program to meet current and projected needs for the next 30 years by withdrawing raw, non-potable water directly from the Potomac River, storing it for future use in existing quarries, and processing finished drinking water at a new water treatment facility.

Loudoun Water's Central Water Supply Program

The Loudoun Water Board of Directors' action was a culmination of years of effort that included long-range planning, alternatives analysis, negotiation between potential partners and outreach to community interests. Alternatives included increasing the amount of water purchased from Fairfax Water, and the purchase and upgrade of an existing water treatment plant owned and operated by the City of Fairfax.

Fairfax Water utilizes an integrated system to provide Loudoun Water up to 50 MGD of water from the Potomac River and the Occoquan Reservoir. This system provides a dependable source of water and was evaluated as an alternative to the proposed water storage option. However, significant costs are associated with the water volume necessary to meet Loudoun County's needs and include the cost of upgrading Fairfax Water's existing intake on the Potomac River, extending and additional 35 miles of finished water lines through both developed and natural areas of Loudoun and Fairfax Counties (instead of the of the 8 miles contemplated with the proposed Central Water Supply Program) and incurring ongoing operating costs of a system that requires the pumping of water between elevations that differ by as much as 340 feet.

The City of Fairfax obtains water from the Goose Creek Reservoir and existing agreements allocate up to 7 MGD to Loudoun Water as available. Droughts in recent years have diminished stream flow in Goose Creek, however, and Loudoun Water has only been able to reliably depend upon 3 MGD from this source. While Loudoun Water has approached the City with offers to purchase and upgrade the existing water treatment plant, the City remains committed to ownership and operation of its own water treatment facility.

Loudoun Water could construct a water treatment plant on land it owns along the Potomac River, to the west of the River Creek community. However, development constraints associated with this property as well as its size (less than half the acreage of the proposed site) limits the amount of open space that can be used to augment minimum buffer requirements along the property's boundary, next to existing residential development. Moreover, the parcel is not located near current and future Loudoun Water customers who will need to be served by the expanded water supply. Nor is it located in proximity to raw water storage sites and finished water storage tanks that are part of the Central Water Supply System.

Loudoun Water's decision to build its own Potomac River water supply, to better locate its future water treatment plant near an existing/future customer base, and to utilize quarries for water storage was made in light of the factors cited above.

Components of the Central Water Supply Program

Loudoun Water's Central Water Supply Program consists of individual components: a raw water intake and pump station at the Potomac River, a water treatment plant on a parcel located approximately 1 mile southwest of the Application Property, and raw water storage (Water Banking – see below) in one or more quarries owned by Luck Stone Corporation that are located in between the two other components. Exhibit 2 is provided for illustrative purposes only, to portray the manner in which components of the proposed Central Water Supply Program relate to each other and to other quarry sites that may provide potential opportunities for Water Banking opportunities in the future.

Raw Water Intake and Pump Station

The Central Water Supply Program includes a water intake to be located in the Potomac River and on a 23 acre riverfront property that Loudoun Water acquired in 1993. Raw water will be pumped from the river and conveyed to the remaining components of the system. Revised General Plan policy recommends that Loudoun Water may provide its own water supply option along the Potomac River. Use of this parcel for an intake was shown on an approved concept plan associated with the River Creek rezoning (ZMAP 1989-0015), and the pump station that is part of the intake component is permitted as a by-right use per the Loudoun County Zoning Ordinance. As a result, neither a commission permit nor a special exception is required for this use. However State and Federal permits are required for the intake and other system components, and these will be obtained.

Water Banking: Raw Water Storage in Existing Quarries

Key to the Central Water Supply Program is a unique concept described as Water Banking; using retired quarries that have been fully mined for water storage. Raw, non potable water is deposited in the quarries during times when Potomac River flows are normal to high, and then withdrawn in lieu of continued withdrawals from the river during times of drought or excess turbidity. In this way sufficient water can be treated to serve the demands of Central Water Supply System customers without impacts to the river or to the water supply needs of other jurisdictions.

Loudoun Water's public/private partnership and business agreements with Luck Stone are instrumental to implementing the Water Banking concept. Four quarries situated in proximity to each other as well as to Loudoun Water's proposed water treatment plant afford the opportunity to store up to eight billion gallons of water and minimize Loudoun Water's withdrawals from the Potomac during less optimal times. An agreement between Loudoun Water and Luck Stone provides Loudoun Water the opportunity to use Luck's quarry located north of the W&OD Trail and east of Goose Creek ("Quarry A") for Water Banking. It is Quarry A that is currently the subject of this set of applications. It is anticipated that approximately 1 billion gallons of water will be able to be stored in this quarry alone once mining operations are complete in the 2017-2020 timeframe. In this manner, Loudoun Water will be able to use quarries for a beneficial public purpose.

Water Treatment Plant

The Central Water Supply Program envisions a water treatment plant being constructed in two phases on a parcel located approximately one mile southwest of the Application Property. Phase I will result in the construction of a 20 MGD facility by approximately 2016 to serve the short term water needs of the Central Water Supply System. The fully expanded 40 MGD facility will provide for future needs to the 2035-2040 timeframe. Water from either the Potomac River or Water Banking site(s) will be processed into finished drinking water at the treatment facility. From there it will enter the Central Water Supply System via a finished water line that extends under Goose Creek to an existing water line along Belmont Ridge Road, Rt. 659, connecting to local water lines and to Loudoun Water's Broadlands and Brambleton water tanks located approximately 1.6 and 4 miles to the south, respectively.

Comprehensive Plan and Policy Considerations Relative to the Proposed Commission Permit and Special Exception; Compliance with Plan Objectives

The Property is located in the Suburban Policy Area per the Loudoun County Revised General Plan. Quarries in the Suburban Policy Area are governed by the Green Infrastructure Policies of the Plan, and those policies specifically recommend that the County encourage the innovative and sensitive reuse of quarries and resource extraction sites (Chapter 5, Mineral Resource

Extraction Policy #8. In 2008, Loudoun County's Environmental Policy and Program Assessment recognized that quarries could be converted for water storage purposes (page 66).

 <u>Compliance with Plan Policies:</u> Use of the Property for water storage is an opportunity to reclaim Quarry A for a beneficial public purpose once mining operations have been completed.

The Revised General Plan recommends that Loudoun Water continue to be responsible for the provision and extension of public water service in the Suburban Policy Area and Transition Policy Area (Chapter 2, General Water/Sewer Policy # 7). It notes that other water supply options to those that already exist (i.e. water from Fairfax City and Fairfax Water) can be considered for the Suburban and Transition Policy Areas (Chapter 2, General Water Policy #2). A Potomac River water facility is an identified option. The Plan includes a recommendation for the County and Loudoun Water to cooperate in developing long-range plans for water supply and impoundment sites (General Water Policy #6).

Compliance with Plan Policies: The proposed use supports Loudoun Water's responsibility
to insure the adequate and efficient supply of water for the Central Water Supply System
that serves the Suburban and Transition Policy Areas of the County. Water from the
Potomac River will be stored in accordance with Loudoun Water's adopted Potomac River
Water Supply Program as described above.

The Revised General Plan notes that open space is to be located so as to create and supplement a 300 foot buffer along Goose Creek (Community Design Policy #13; Scenic Rivers and Potomac River Policy #1).

<u>Compliance with Plan Policies</u>: The water feature that will result once Quarry A is reclaimed in accordance with the proposed use will supplement the Plan-recommended Goose Creek no-build buffer.

Zoning and Related Conditions Relative to the Proposed Water Storage Facility

The Property has been a quarry since the 1880's and it became an unintended water impoundment area when Hurricane Agnes caused Goose Creek to overflow its boundaries and flood quarry in 1972. The water remained in the quarry for approximately twenty-one years until Luck Stone Corporation pumped the water out in order to resume mining operations.

Use of the Property for water storage will become effective only after mining operations have ceased. At that time the quarry cavity will have the potential to hold over one billion gallons of water. Exhibit 3 illustrates the status of the Quarry A mining operation in early 2008, the manner in which the quarry will be mined over time, and the total water volume that can be anticipated upon completion of quarry operations. Luck Stone estimates that it will take between eight and eleven years to fully mine the Property.

Welded wire black fencing will be provided around the perimeter of the Property. This type of fencing provides for necessary security for the water supply and a safety measure for the general public.

Zoning Requirements

The use of a quarry for water storage meets the Zoning Ordinance definition for a "water storage tank" as it is a ".... other facility for the storage of water for supply to a water system". The proposed use is permitted in the MR-HI District by Special Exception. The proposed use is also a

"structure or use required for the operation of a public utility", permitted by Special Exception in a Floodplain Overlay District per Section 4-1506D. Section 5-621 of the Zoning Ordinance requires a Type 4 Buffer for Loudoun Water (LCSA) facilities, but the requirement can be modified with approval of a minor special exception pursuant to Zoning Ordinance Section 5-600. Two special exception applications and a minor special exception application have been filed in accordance with these Zoning Ordinance provisions in support of the proposed water storage use.

The proposed use complies with the provisions of Sec. 6-1310 of the Zoning Ordinance as follows:

- (A) Whether the proposed special exceptions are is consistent with the Comprehensive Plan.
 - Response: Specific references to Plan compliance have been cited in the section entitled "Comprehensive Plan and Policy Considerations Relative to the Proposed Commission Permit and Special Exception; Compliance with Plan Objectives". Use of the Property for water storage is an opportunity to reclaim an existing quarry once mining operations have been completed and to do so in a way that supports the Plan's public water supply policies. Reclaiming the quarry for water storage will not increase flood heights or velocities and may reduce impacts from flooding because the fully mined quarry will have at least twenty feet of unused volume even after the water storage facility is fully operational.
- (B) Whether the proposed special exceptions will adequately provide for safety from fire hazards and have effective measures of fire control.
 - Response: By the very nature of the proposed water storage use, fire hazards and fire control should not be a concern.
- (C) Whether the level and impact of any noise emanating from the site, including that generated by the proposed use, negatively impacts the uses in the immediate area.
 - Response: No noise impacts are anticipated from the proposed water storage use.
- (D) Whether the glare or light that may be generated by the proposed use negatively impacts uses in the immediate area.
 - <u>Response:</u> Lighting will be provided for safety and security measures only. Lighting will be directed downward so as to reduce glare and spillover unless safety and security measures dictate otherwise.
- (E) Whether the proposed use is compatible with other existing or proposed uses in the neighborhood and adjacent parcels.
 - Response: The proposed water storage facility will be compatible with uses on adjacent parcels.
- (F) Whether sufficient existing or proposed landscaping, screening and buffering on the site and in the neighborhood to adequately screen surrounding uses.
 - <u>Response:</u> Sufficient landscaping exists to screen and buffer surrounding uses from the proposed use, particularly in light of the fact that future water storage will be at an elevation that is at least twenty feet below the quarry rim. Existing mature trees and vegetation, and an existing embankment both to the north and west completely screen the proposed use from a

residential use (north) and Goose Creek (west). Existing mature trees and vegetation along the parcel boundary to the south screens the proposed use from the W&OD Trail. To the east, very little landscaping exists. However, landscaping would not be effective in screening the water in the quarry from existing quarry-related industrial and commercial uses because they have been developed on land that is at a higher elevation than the quarry. Water storage in a retired quarry will be a passive use and one that is less intensive than surrounding uses, both existing and permitted. It is for these reasons that a minor special exception has been filed to permit existing vegetation north, west and south of the quarry to satisfy buffer requirements for the proposed use.

(G) Whether the proposed special exceptions will result in the preservation of any topographic or physical, natural, scenic, archaeological or historic feature of significant importance.

<u>Response:</u> None of the above-cited features exist because the Property is a stone quarry and the site of an active mining operation.

(H) Whether the proposed special exceptions will damage existing animal habitat, vegetation, water quality (including groundwater) or air quality.

<u>Response:</u> The proposed use will not damage these features because the Property is a stone quarry and the site of an active mining operation.

(I) Whether the proposed special exceptions at the specified location will contribute to or promote the welfare or convenience of the public.

<u>Response:</u> The proposed use will promote the general public welfare by insuring that a sufficient supply of water is available to meet current and projected demands for water in the Central Water Supply System, that it is done in the most cost effective manner for the benefit of Loudoun Water customers who obtain water through that system, and that it is done without negative impacts to the environment or surrounding land uses. .

(J) Whether the traffic expected to be generated by the proposed use will be adequately and safely be served by roads, pedestrian connections and other transportation services.

<u>Response:</u> Anticipated traffic generated by the proposed water storage use is minimal, estimated to be an average of one trip per day from Belmont Ridge Road when water is being stored or withdrawn from the quarry. Pedestrian access within the Property will not be permitted for security and safety reasons.

(K) Whether, in the case of existing structures proposed to be converted to uses requiring a special exception, the structures meet all code requirements of Loudoun County.

<u>Response:</u> The Property is an actively mined stone quarry. None of the mining-related structures will be converted under the proposed use.

(L) Whether the proposed special exceptions will be served adequately by essential public facilities and services.

<u>Response:</u> The proposed water storage use does not require public facilities and services. Water lines to and from the facility will be extended by Loudoun Water as necessary to connect the water storage use to other Central Water Supply Program components.

(M) The effect of the proposed special exceptions on groundwater supply.

<u>Response:</u> Groundwater impacts are not anticipated with the water storage use because of the dense nature of the remaining diabase rock that will line the quarry cavity. Any existing fissures will be properly sealed prior to water storage activity.

(N) Whether the proposed use will affect the structural capacity of the soils.

<u>Response:</u> The proposed use will not affect the structural capacity of the rock that remains after quarry operations have been completed.

(O) Whether the proposed use will negatively impact orderly and safe road development and transportation.

<u>Response:</u> The proposed use will not negatively impact orderly and safe road development and transportation. Vehicle trips will average one trip per day during those times when water is either being pumped to or withdrawn from the facility.

(P) Whether the proposed special exception use will provide desirable employment and enlarge the tax base by encouraging economic development activities consistent with the Comprehensive Plan.

<u>Response:</u> The proposed water treatment facility is a public use which will not, in and of itself, enlarge the tax base. However it will provide employment opportunities during the time it is being reclaimed for the proposed use.

(Q) Whether the proposed special exception considers the needs of agriculture, industry, and businesses in future growth.

<u>Response:</u> The proposed use will more effectively provide for the future water supply needs of industry and business in the areas served by the Central Water Supply System.

(R) Whether adequate on and off-site infrastructure is available.

<u>Response:</u> Waterlines will connect the proposed water storage facility to a planned intake on the Potomac River and a proposed water treatment plant that is the subject of a companion special exception application.

(S) Any anticipated odors which may be generated by the uses on site, and which may negatively impact adjacent uses.

Response: No odors will be generated by the proposed use.

(T) Whether the proposed special exceptions use sufficient measures to mitigate the impact of construction traffic on existing neighborhoods and school areas.

Response: There will be limited construction activity associated with the proposed use.

As previously mentioned, portions of Quarry A are located in a floodplain. The proposed water storage use is a "use required for the operation of a public utility", and is permitted by Special Exception in a Floodplain Overlay District per Section 4-1506D. The proposed use complies with the provisions of Sec. 4-1507 of the Zoning Ordinance (Standards for a Special Exception) as follows:

(A) The proposed use will not increase the danger to life and property due to increased flood heights or velocities.

<u>Response</u>: The proposed use will not increase danger to life and property due to increased flood height or velocities. When the existing quarry is fully mined, the water level of the proposed water storage facility will be at the same approximate level as the water in Goose Creek (elevation 210). That elevation is over twenty feet below the lowest elevation of the quarry rim.

(B) The proposed use will not increase the danger that materials may be swept downstream to the injury of others.

<u>Response</u>: There will be no obstructions constructed within the floodplain, and therefore no materials will be swept downstream.

(C) The proposed water supply and sanitation systems are designed to prevent disease, contamination, and unsanitary conditions.

Response: There will be no sanitation system or potable water supply system constructed with the proposed use.

(D) The proposed use or structure must be located and designed to limit its susceptibility to flood damage, and available alternative locations, not subject to flooding, for the proposed use must be considered.

<u>Response</u>: Quarry A's walls consist of hard diabase rock and will not be susceptible to flood damage. Other nearby quarries have been considered and may be used in the future for water storage, but they cannot meet Loudoun Water's need for water storage by the 2017-2020 timeframe.

(E) The proposed use is compatible with existing and planned development.

<u>Response</u>: The proposed use is compatible with existing and planned development. The entire parcel is planned, zoned, and used for quarry and quarry-related uses. Reuse of the quarry for water storage is also consistent with the provisions of the Revised General Plan, and is less intensive than other existing or permitted uses in the MR-HI District.

(F) The proposed use is in harmony with the comprehensive plan.

<u>Response</u>: Reuse of retired quarries for water storage is in harmony and consistent with the provisions of the Comprehensive Plan. The Property is located in the Suburban Policy Area per the Loudoun County Revised General Plan. Quarries in the Suburban Policy Area are governed by the Green Infrastructure Policies of the Plan, and those policies specifically recommend that the County encourage the innovative and sensitive reuse of quarries and resource extraction sites (Chapter 5, Mineral Resource Extraction Policy #8. In 2008, Loudoun County's Environmental Policy and Program Assessment recognized that quarries could be converted for water storage purposes (page 66).

(G) The expected heights, velocity, duration, rate of rise and sediment transport of the flood waters expected at the site should not cause significant damage.

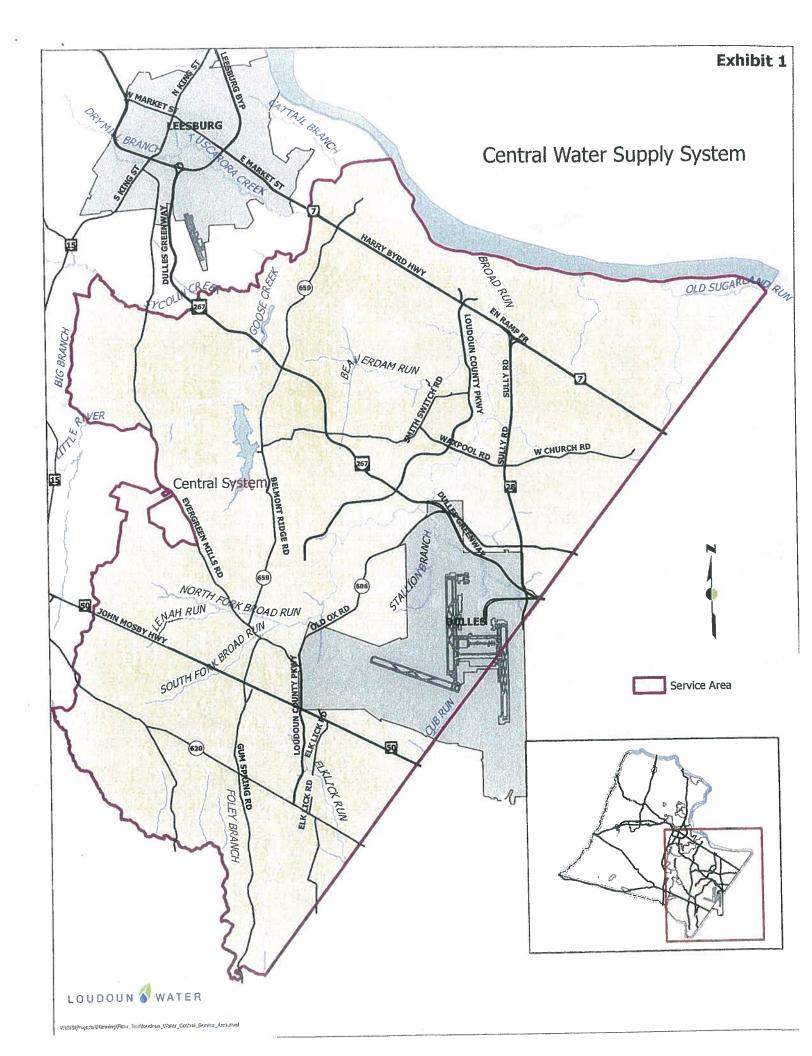
<u>Response</u>: When the existing quarry is fully mined, the water level of the proposed water storage facility will be at the same approximate level as the water in Goose Creek (elevation 210). That elevation is over twenty feet below the lowest elevation of the quarry rim. The proposed use should not, therefore, affect expected heights, velocity, duration, rate of rise and sediment transport of any flood waters expected at the site and should therefore not cause significant damage

Pursuant to Chapter 5 of the Facilities Standards Manual, a floodplain study waiver is permitted where projects do not propose crossings or encroachments in the floodplain and where existing floodplain information reflects ultimate development conditions. The following justification is provided for a Floodplain Study Waiver Request:

- A. No crossings or encroachments in the floodplain are proposed. Only the quarry, which will be fully mined prior to implementation of the proposed use, is the subject of the special exception application.
- B. Existing floodplain information reflects ultimate development conditions. No structures are proposed in the floodplain other than the quarry which will be fully mined prior to implementation of the proposed use.
- C. The proposed water storage use will not be implemented for at least eight years. In that time, elevations within the special exception area (i.e. the area of the quarry pit) will change as mining operations are completed.

Conclusion

For the reasons cited above, use of the Property for water storage is appropriate, particularly in light of Revised General Plan recommendations which encourage the innovative reuse of existing quarries and in light of Loudoun Water's responsibility to provide an adequate supply of water to the Central Water Supply System in the most effective and cost efficient manner possible.



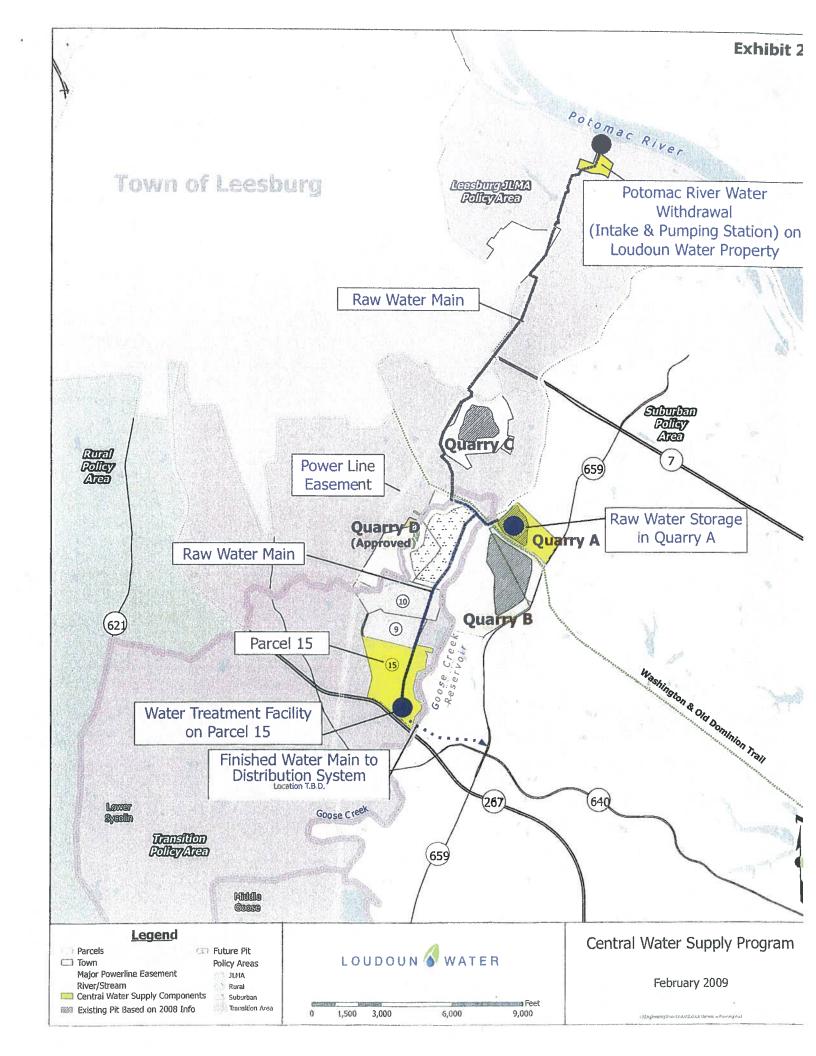
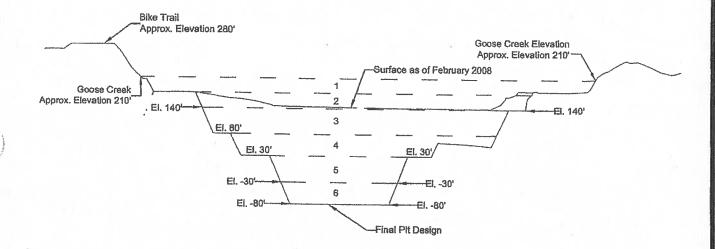


EXHIBIT 3							
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				а	5-6	B B	- 45

Lauran and Antique Printers									
Reserves and Water Volume by Lift									
Section	Lift	Volume (cu. ft)	Volume (gallons)						
1	210 to 176	38,915,500	291,087,940						
2	176 to 140	29,257,000	218,842,360						
3	140 to 80	37,085,000	277,395,800						
4	80 to 30	23,298,500	174,272,780						
5	30 to -30	15,201,000	113,703,480						
6	-30 to -80	8,862,000	66,287,760						
Total		152,619,000	1,141,590,120						



QUARRY "A"
ILLUSTRATIVE MINE PLAN

Statement of Justification

CMPT-2009-0006 SPEX-2009-0020

SPEX-2009-XXXX

SPMI-2009-XXXX

Commission Permit and Special Exception Application for Future Water Storage in an Existing Quarry (Water Storage Tank);

Special Exception for the Location of a Use Required for the Operation of a Public
Utility in the Floodplain

Minor Special Exception Modifying Requirements for Required Type 4 Buffer

Parcel 29 (TM 61; MCPI# 114-25-6156)

Loudoun Water - Applicant June 1, 2009

Revised October 19, 2009

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Summary of Project Proposal

Loudoun Water (Applicant) proposes to use "Quarry A" (Property), an existing diabase rock quarry totaling 33.68 acres for water storage once mining operations are completed. This quarry comprises the special exception application area and is part of the 80.61-acre Parcel 29 located to the east of Goose Creek and north of the W&OD Trail. Other quarry- related commercial uses are located on the same parcel to the east and are not included in this special exception application.

Parcel 29 is zoned MR-HI as are adjacent parcels to the north and south, beyond the W&OD Trail. Existing residential and non-residential structures are located to the north while a second quarry, "Quarry B", is located to the south. Goose Creek is located between 70/150 feet west of the Property and forms the western boundary of Parcel 29. Jack Pit Lane, a private road, provides access to the Property from Belmont Ridge Road, Rt. 659 farther to the east.

Quarries A and B are part of Luck Stone Corporation's Leesburg Plant mining operation which also includes an approved, future quarry to the west, across Goose Creek. Loudoun Water has an agreement with Luck Stone Corporation to utilize Quarry A for water storage when mining operations have been completed, currently estimated to be in the 2017-2020 timeframe. Quarry A is a key component of Loudoun Water's Central Water Supply Program, as described below, and it provides the potential for Loudoun Water to store up to 1 billion gallons of water for future use in the area served by the Central Water Supply System.

Background

<u>Loudoun Water's Long-Range Planning Efforts to Satisfy Anticipated Needs for the Central Water Supply System</u>

Loudoun Water currently provides public water to residential and non residential customers within an area identified by Loudoun County as the Central Water Supply System (See Exhibit 1). Loudoun Water obtains 57 million gallons per day (MGD) of water to serve this area from Fairfax Water and the City of Fairfax. Loudoun County land use plans and related demographic projections have been used by Loudoun Water to forecast that more water will be needed to meet future demand in the Central Water Supply System by 2035-2040 (total estimate needed: 90 MGD) even as efforts continue to reduce peak demands through implementation of a wise water use program and proactive demand management strategies. On December 11, 2008, the Loudoun Water Board of Directors gave approval for the proposed Potomac River Water Supply

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and Raw Water Storage Program ("Central Water Supply Program"), a two-phased program to meet current and projected needs for the next 30 years by withdrawing raw, non-potable water directly from the Potomac River, storing it for future use in existing quarries, and processing finished drinking water at a new water treatment facility.

Loudoun Water's Central Water Supply Program

The Loudoun Water Board of Directors' action was a culmination of years of effort that included long-range planning, alternatives analysis, negotiation between potential partners and outreach to community interests. Alternatives included increasing the amount of water purchased from Fairfax Water, and the purchase and upgrade of an existing water treatment plant owned and operated by the City of Fairfax.

Fairfax Water utilizes an integrated system to provide Loudoun Water up to 50 MGD of water from the Potomac River and the Occoquan Reservoir. This system provides a dependable source of water and was evaluated as an alternative to the proposed water storage option. However, significant costs are associated with the water volume necessary to meet Loudoun County's needs and include the cost of upgrading Fairfax Water's existing intake on the Potomac River, extending and additional 35 miles of finished water lines through both developed and natural areas of Loudoun and Fairfax Counties (instead of the of the 8 miles contemplated with the proposed Central Water Supply Program) and incurring ongoing operating costs of a system that requires the pumping of water between elevations that differ by as much as 340 feet.

The City of Fairfax obtains water from the Goose Creek Reservoir and existing agreements allocate up to 7 MGD to Loudoun Water as available. Droughts in recent years have diminished stream flow in Goose Creek, however, and Loudoun Water has only been able to reliably depend upon 3 MGD from this source. While Loudoun Water has approached the City with offers to purchase and upgrade the existing water treatment plant, the City remains committed to ownership and operation of its own water treatment facility.

Loudoun Water could construct a water treatment plant on land it owns along the Potomac River, to the west of the River Creek community. However, development constraints associated with this property as well as its size (less than half the acreage of the proposed site) limits the amount of open space that can be used to augment minimum buffer requirements along the property's boundary, next to existing residential development. Moreover, the parcel is not located near current and future Loudoun Water customers who will need to be served by the expanded water supply. Nor is it located in proximity to raw water storage sites and finished water storage tanks that are part of the Central Water Supply System.

Loudoun Water's decision to build its own Potomac River water supply, to better locate its future water treatment plant near an existing/future customer base, and to utilize quarries for water storage was made in light of the factors cited above.

Components of the Central Water Supply Program

Loudoun Water's Central Water Supply Program consists of individual components: a raw water intake and pump station at the Potomac River, a water treatment plant on a parcel located approximately 1 mile southwest of the Application Property, and raw water storage (Water Banking – see below) in one or more quarries owned by Luck Stone Corporation that are located in between the two other components. Exhibit 2 is provided for illustrative purposes only, to

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portray the manner in which components of the proposed Central Water Supply Program relate to each other and to other quarry sites that may provide potential opportunities for Water Banking opportunities in the future.

Raw Water Intake and Pump Station

The Central Water Supply Program includes a water intake to be located in the Potomac River and on a 23 acre riverfront property that Loudoun Water acquired in 1993. Raw water will be pumped from the river and conveyed to the remaining components of the system. Revised General Plan policy recommends that Loudoun Water may provide its own water supply option along the Potomac River. Use of this parcel for an intake was shown on an approved concept plan associated with the River Creek rezoning (ZMAP 1989-0015), and the pump station that is part of the intake component is permitted as a by-right use per the Loudoun County Zoning Ordinance. As a result, neither a commission permit nor a special exception is required for this use. However State and Federal permits are required for the intake and other system components, and these will be obtained.

Water Banking: Raw Water Storage in Existing Quarries

Key to the Central Water Supply Program is a unique concept described as Water Banking; using retired quarries that have been fully mined for water storage. Raw, non potable water is deposited in the quarries during times when Potomac River flows are normal to high, and then withdrawn in lieu of continued withdrawals from the river during times of drought or excess turbidity. In this way sufficient water can be treated to serve the demands of Central Water Supply System customers without impacts to the river or to the water supply needs of other jurisdictions.

Loudoun Water's public/private partnership and business agreements with Luck Stone are instrumental to implementing the Water Banking concept. Four quarries situated in proximity to each other as well as to Loudoun Water's proposed water treatment plant afford the opportunity to store up to eight billion gallons of water and minimize Loudoun Water's withdrawals from the Potomac during less optimal times. An agreement between Loudoun Water and Luck Stone provides Loudoun Water the opportunity to use Luck's quarry located north of the W&OD Trail and east of Goose Creek ("Quarry A") for Water Banking. It is Quarry A that is currently the subject of this set of applications. It is anticipated that approximately 1 billion gallons of water will be able to be stored in this quarry alone once mining operations are complete in the 2017-2020 timeframe. In this manner, Loudoun Water will be able to use quarries for a beneficial public purpose.

Water Treatment Plant

The Central Water Supply Program envisions a water treatment plant being constructed in two phases on a parcel located approximately one mile southwest of the Application Property. Phase I will result in the construction of a 20 MGD facility by approximately 2016, to serve the short term water needs of the Central Water Supply System. The fully expanded 40 MGD facility will provide for future needs to the 2035-2040 timeframe. Water from either the Potomac River or Water Banking site(s) will be processed into finished drinking water at the treatment facility. From there it will enter the Central Water Supply System via a finished water line that extends under Goose Creek to an existing water line along Belmont Ridge Road, Rt. 659, connecting to local water lines and to Loudoun Water's Broadlands and Brambleton water tanks located approximately 1.6 and 4 miles to the south, respectively.

Comprehensive Plan and Policy Considerations Relative to the Proposed Commission Permit and Special Exception; Compliance with Plan Objectives

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The Property is located in the Suburban Policy Area per the Loudoun County Revised General Plan. Quarries in the Suburban Policy Area are governed by the Green Infrastructure Policies of the Plan, and those policies specifically recommend that the County encourage the innovative and sensitive reuse of quarries and resource extraction sites (Chapter 5, Mineral Resource Extraction Policy #8. In 2008, Loudoun County's Environmental Policy and Program Assessment recognized that quarries could be converted for water storage purposes (page 66).

 <u>Compliance with Plan Policies:</u> Use of the Property for water storage is an opportunity to reclaim Quarry A for a beneficial public purpose once mining operations have been completed.

The Revised General Plan recommends that Loudoun Water continue to be responsible for the provision and extension of public water service in the Suburban Policy Area and Transition Policy Area (Chapter 2, General Water/Sewer Policy # 7). It notes that other water supply options to those that already exist (i.e. water from Fairfax City and Fairfax Water) can be considered for the Suburban and Transition Policy Areas (Chapter 2, General Water Policy #2). A Potomac River water facility is an identified option. The Plan includes a recommendation for the County and Loudoun Water to cooperate in developing long-range plans for water supply and impoundment sites (General Water Policy #6).

<u>Compliance with Plan Policies:</u> The proposed use supports Loudoun Water's responsibility
to insure the adequate and efficient supply of water for the Central Water Supply System
that serves the Suburban and Transition Policy Areas of the County. Water from the
Potomac River will be stored in accordance with Loudoun Water's adopted Potomac River
Water Supply Program as described above.

The Revised General Plan notes that open space is to be located so as to create and supplement a 300 foot buffer along Goose Creek (Community Design Policy #13; Scenic Rivers and Potomac River Policy #1).

<u>Compliance with Plan Policies</u>: The water feature that will result once Quarry A is reclaimed in accordance with the proposed use will supplement the Plan-recommended Goose Creek no-build buffer.

Zoning and Related Conditions Relative to the Proposed Water Storage Facility

The Property has been a quarry since the 1880's and it became an unintended water impoundment area when Hurricane Agnes caused Goose Creek to overflow its boundaries and flood quarry in 1972. The water remained in the quarry for approximately twenty-one years until Luck Stone Corporation pumped the water out in order to resume mining operations.

Use of the Property for water storage will become effective only after mining operations have ceased. At that time the quarry cavity will have the potential to hold over one billion gallons of water. Exhibit 3 illustrates the status of the Quarry A mining operation in early 2008, the manner in which the quarry will be mined over time, and the total water volume that can be anticipated upon completion of quarry operations. Luck Stone estimates that it will take between eight and eleven years to fully mine the Property.

Welded wire black fencing will be provided around the perimeter of the Property. This type of fencing provides for necessary security for the water supply and a safety measure for the general public.

Zoning Requirements

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The use of a quarry for water storage meets the Zoning Ordinance definition for a "water storage tank" as it is a ".... other facility for the storage of water for supply to a water system". The proposed use is permitted in the MR-HI District by Special Exception. The proposed use is also a "structure or use required for the operation of a public utility", permitted by Special Exception in a Floodplain Overlay District per Section 4-1506D. Section 5-621 of the Zoning Ordinance requires a Type 4 Buffer for Loudoun Water (LCSA) facilities, but the requirement can be modified with approval of a minor special exception pursuant to Zoning Ordinance Section 5-600. Two special exception applications and a minor special exception application have been filed in accordance with these Zoning Ordinance provisions in support of the proposed water storage use.

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The proposed use complies with the provisions of Sec. 6-1310 of the Zoning Ordinance as follows:

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- (A) Whether the proposed special exceptions are is consistent with the Comprehensive Plan.
 - Response: Specific references to Plan compliance have been cited in the section entitled "Comprehensive Plan and Policy Considerations Relative to the Proposed Commission Permit and Special Exception; Compliance with Plan Objectives". Use of the Property for water storage is an opportunity to reclaim an existing quarry once mining operations have been completed and to do so in a way that supports the Plan's public water supply policies. Reclaiming the quarry for water storage will not increase flood heights or velocities and may reduce impacts from flooding because the fully mined quarry will have at least twenty feet of unused volume even after the water storage facility is fully operational.
- (B) Whether the proposed special exceptions will adequately provide for safety from fire hazards and have effective measures of fire control.

Response: By the very nature of the proposed water storage use, fire hazards and fire control should not be a concern.

(C) Whether the level and impact of any noise emanating from the site, including that generated by the proposed use, negatively impacts the uses in the immediate area.

Response: No noise impacts are anticipated from the proposed water storage use.

(D) Whether the glare or light that may be generated by the proposed use negatively impacts uses in the immediate area.

<u>Response:</u> Lighting will be provided for safety and security measures only. Lighting will be directed downward so as to reduce glare and spillover unless safety and security measures dictate otherwise.

(E) Whether the proposed use is compatible with other existing or proposed uses in the neighborhood, and adjacent parcels.

Response: The proposed water storage facility will be compatible with uses on adjacent parcels,

(F) Whether sufficient existing or proposed landscaping, screening and buffering on the site and in the neighborhood to adequately screen surrounding uses. **Deleted:** also create a water feature within and beyond the Plan recommended Goose Creek Scenic River buffer area that will be a predominant visual element when viewed by pedestrians and bicyclists from the W&OD Trail.

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Response: Sufficient landscaping exists to screen and buffer surrounding uses from the proposed use, particularly in light of the fact that future water storage will be at an elevation that is at least twenty feet below the quarry rim. Existing mature trees and vegetation, and an existing embankment both to the north and west completely screen the proposed use from a residential use (north) and Goose Creek (west). Existing mature trees and vegetation along the parcel boundary to the south screens the proposed use from the W&OD Trail. To the east, very little landscaping exists. However, landscaping would not be effective in screening the water in the quarry from existing quarry-related industrial and commercial uses because they have been developed on land that is at a higher elevation than the quarry. Water storage in a retired quarry will be a passive use and one that is less intensive than surrounding uses, both existing and permitted. It is for these reasons that a minor special exception has been filed to permit existing vegetation north, west and south of the quarry to satisfy buffer requirements for the proposed use.

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(G) Whether the proposed special exceptions will result in the preservation of any topographic or physical, natural, scenic, archaeological or historic feature of significant importance.

<u>Response:</u> None of the above-cited features exist because the Property is a stone quarry and the site of an active mining operation.

(H) Whether the proposed special exceptions will damage existing animal habitat, vegetation, water quality (including groundwater) or air quality.

<u>Response:</u> The proposed use will not damage these features because the Property is a stone quarry and the site of an active mining operation.

(I) Whether the proposed special exceptions at the specified location will contribute to or promote the welfare or convenience of the public.

<u>Response:</u> The proposed use will promote the general public welfare by insuring that a sufficient supply of water is available to meet current and projected demands for water in the Central Water Supply System, that it is done in the most cost effective manner for the benefit of Loudoun Water customers who obtain water through that system, and that it is done without negative impacts to the environment or surrounding land uses.

(J) Whether the traffic expected to be generated by the proposed use will be adequately and safely be served by roads, pedestrian connections and other transportation services.

<u>Response:</u> Anticipated traffic generated by the proposed water storage use is minimal, estimated to be an average of one trip per day from Belmont Ridge Road when water is being stored or withdrawn from the quarry. Pedestrian access within the Property will not be permitted for security <u>and safety</u> reasons.

(K) Whether, in the case of existing structures proposed to be converted to uses requiring a special exception, the structures meet all code requirements of Loudoun County.

<u>Response</u>: The Property is an actively mined stone quarry. None of the mining-related structures will be converted under the proposed use.

(L) Whether the proposed special exceptions will be served adequately by essential public facilities, and services.

Response: The proposed water storage use does not require public facilities and services.

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Water lines to and from the facility will be extended by Loudoun Water as necessary to connect the water storage use to other Central Water Supply Program components.

(M) The effect of the proposed special exceptions on groundwater supply.

<u>Response:</u> Groundwater impacts are not anticipated with the water storage use because of the dense nature of the remaining diabase rock that will line the quarry cavity. Any existing fissures will be properly sealed prior to water storage activity.

(N) Whether the proposed use will affect the structural capacity of the soils.

<u>Response:</u> The proposed use will not affect the structural capacity of the rock that remains after quarry operations have been completed.

(O) Whether the proposed use will negatively impact orderly and safe road development and transportation.

<u>Response:</u> The proposed use will not negatively impact orderly and safe road development and transportation. Vehicle trips will average one trip per day during those times when water is either being pumped to or withdrawn from the facility.

(P) Whether the proposed special exception use will provide desirable employment and enlarge the tax base by encouraging economic development activities consistent with the Comprehensive Plan.

<u>Response:</u> The proposed water treatment facility is a public use which will not, in and of itself, enlarge the tax base. However it will provide employment opportunities during the time it is being reclaimed for the proposed use.

(Q) Whether the proposed special exception considers the needs of agriculture, industry, and businesses in future growth.

<u>Response:</u> The proposed use will more effectively provide for the future water supply needs of industry and business in the areas served by the Central Water Supply System.

(R) Whether adequate on and off-site infrastructure is available.

<u>Response:</u> Waterlines will connect the proposed water storage facility to a planned intake on the Potomac River and a proposed water treatment plant that is the subject of a companion special exception application.

(S) Any anticipated odors which may be generated by the uses on site, and which may negatively impact adjacent uses.

Response: No odors will be generated by the proposed use.

(T) Whether the proposed special exceptions use sufficient measures to mitigate the impact of construction traffic on existing neighborhoods and school areas.

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Response: There will be limited construction activity associated with the proposed use.

As previously mentioned, portions of Quarry A are located in a floodplain. The proposed water storage use is a "use required for the operation of a public utility", and is permitted by Special

Exception in a Floodplain Overlay District per Section 4-1506D. The proposed use complies with the provisions of Sec. 4-1507 of the Zoning Ordinance (Standards for a Special Exception) as follows:

(A) The proposed use will not increase the danger to life and property due to increased flood heights or velocities.

Response: The proposed use will not increase danger to life and property due to increased flood height or velocities. When the existing quarry is fully mined, the water level of the proposed water storage facility will be at the same approximate level as the water in Goose Creek (elevation 210). That elevation is over twenty feet below the lowest elevation of the quarry rim.

(B) The proposed use will not increase the danger that materials may be swept downstream to the injury of others.

Response: There will be no obstructions constructed within the floodplain, and therefore no materials will be swept downstream.

(C) The proposed water supply and sanitation systems are designed to prevent disease, contamination, and unsanitary conditions.

Response: There will be no sanitation system or potable water supply system constructed with the proposed use.

(D) The proposed use or structure must be located and designed to limit its susceptibility to flood damage, and available alternative locations, not subject to flooding, for the proposed use must be considered.

Response: Quarry A's walls consist of hard diabase rock and will not be susceptible to flood damage. Other nearby quarries have been considered and may be used in the future for water storage, but they cannot meet Loudoun Water's need for water storage by the 2017-2020 timeframe.

(E) The proposed use is compatible with existing and planned development.

Response: The proposed use is compatible with existing and planned development. The entire parcel is planned, zoned, and used for quarry and quarry-related uses. Reuse of the quarry for water storage is also consistent with the provisions of the Revised General Plan, and is less intensive than other existing or permitted uses in the MR-HI District.

(F) The proposed use is in harmony with the comprehensive plan.

Response: Reuse of retired quarries for water storage is in harmony and consistent with the provisions of the Comprehensive Plan. The Property is located in the Suburban Policy Area per the Loudoun County Revised General Plan. Quarries in the Suburban Policy Area are governed by the Green Infrastructure Policies of the Plan, and those policies specifically recommend that the County encourage the innovative and sensitive reuse of quarries and resource extraction sites (Chapter 5, Mineral Resource Extraction Policy #8. In 2008, Loudoun County's Environmental Policy and Program Assessment recognized that quarries could be converted for water storage purposes (page 66).

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(G) The expected heights, velocity, duration, rate of rise and sediment transport of the flood waters expected at the site should not cause significant damage.

Response: When the existing quarry is fully mined, the water level of the proposed water storage facility will be at the same approximate level as the water in Goose Creek (elevation 210). That elevation is over twenty feet below the lowest elevation of the quarry rim. The proposed use should not, therefore, affect expected heights, velocity, duration, rate of rise and sediment transport of any flood waters expected at the site and should therefore not cause significant damage

Pursuant to Chapter 5 of the Facilities Standards Manual, a floodplain study waiver is permitted where projects do not propose crossings or encroachments in the floodplain and where existing floodplain information reflects ultimate development conditions. The following justification is provided for a Floodplain Study Waiver Request:

- A. No crossings or encroachments in the floodplain are proposed. Only the quarry, which will be fully mined prior to implementation of the proposed use, is the subject of the special exception application.
- B. Existing floodplain information reflects ultimate development conditions. No structures are proposed in the floodplain other than the quarry which will be fully mined prior to implementation of the proposed use.
- C. The proposed water storage use will not be implemented for at least eight years. In that time, elevations within the special exception area (i.e. the area of the guarry pit) will change as mining operations are completed.

Conclusion

For the reasons cited above, use of the Property for water storage is appropriate, particularly in light of Revised General Plan recommendations which encourage the innovative reuse of existing quarries and in light of Loudoun Water's responsibility to provide an adequate supply of water to the Central Water Supply System in the most effective and cost efficient manner possible,

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OWNER / DEVELOPER
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P.O. BOX 2062
RCHAOND, A 22242-0682
(800) 998-5823

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APPLICANT
LOUDOUN COUNTY SANITATION AUTHORITY DB.A.
LOUDOUN WATER
44851 LOUDOUN WATER
48551 LOUDOUN WATER WAY
ASTBURN, VIRGINA 20146
(571) 291-7700

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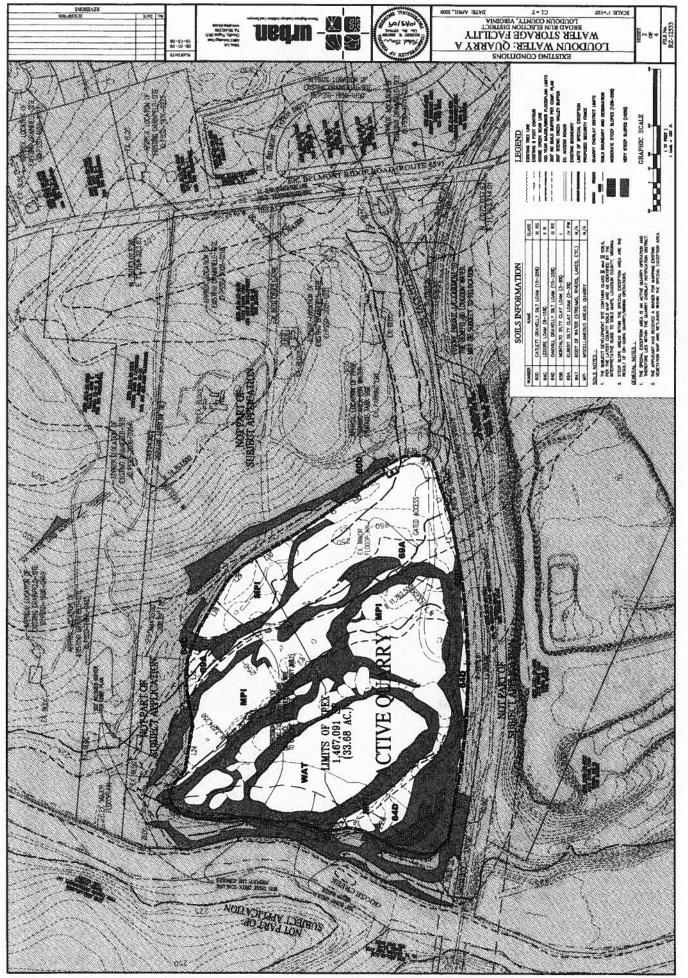
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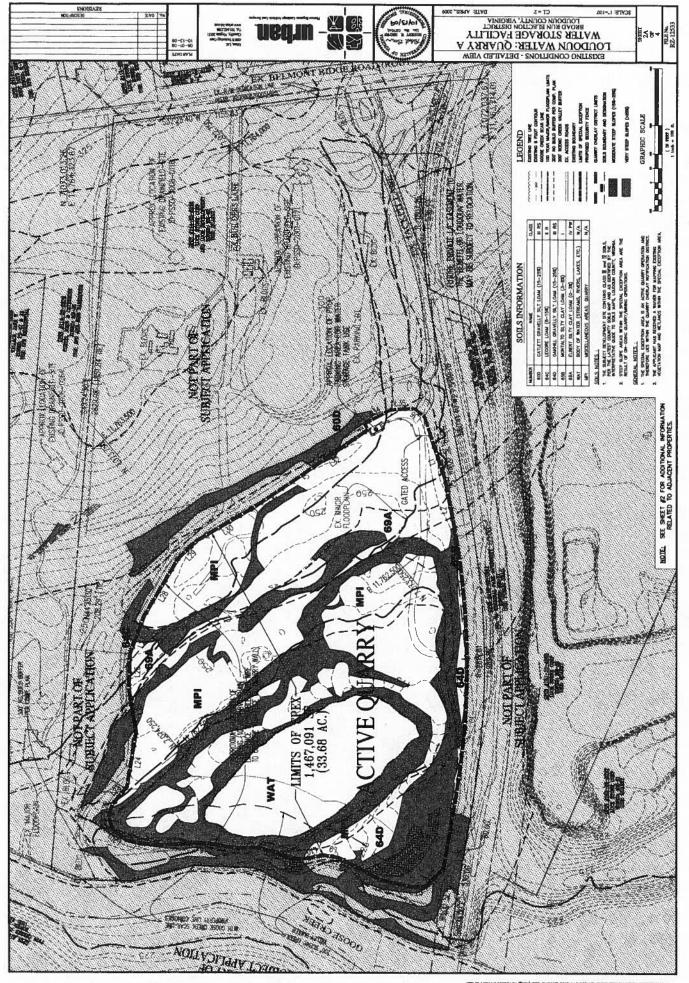
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-		EX. MARIZONE	EX MAN ZONG		EX.LOT (ABI-61 AC.)	* 1,13 <i>9</i>	4 2,600	1771	y line. WATER STORAGE TANK USB			50% MAX.	PER ORDDRANCE	PER CRIDINANCE		PER ORDENANCE
MODERICATION	217	NA	NA		N.A.	NA	NA	NA	MA	SEE SECTION 5-400 ON THIS SHEET		WA	NA NA	NA		NA
SECTION	Ĩ	1 7					1									
NECOUTRED	ADDITIONAL RESULATIONS FOR STRUTTLE USES - PUBLIC UTILITIES Let requirements by Market Service Consenting, VDOT, Leader Water, Park Different and Parket Service Consenting.	(A) In all noting districts, public edition shall be located on the of 17 areas or many feetings while edition a mischane shall have a mischane type four Briller Year. (C) Such edition shall be sooned by private access energon.	(D) Utility Soborations are governed by Section 5-616 of this Ordhamon.		CA) Building and Parks, PACE ACCESS PROM MAJOR ROADS, Defining and Parks, PACESS PROM MAJOR ROADS.	(0) Building Schaefs from Buildings - 25 W. d. OO Tradi: Profring - 16/A. (C) Access from Major New recess points (orives or malks) to Rooks:		locations approved by Loudon: County or VDOT	N							
PROVIDED		ARD AT ACRES DISAR AC. SPECK AREA) EX. BUTPER, VEGETATION TO REMAIN PRIVATE ACCESS EASEMENT PROVIDED	NA		NA											
AS MODULED	S-621(B)-	CONCURENTLY FILED A MINOR SPECIAL EXCEPTION TO	PERSONAL THE EXISTING VEGETATION SUFFEN IN LIEU OF	THE TYPE FOUR BUFFER	NA	N										
SECTION				3	ž.			_								
	number of parking and Loading spaces required.	Francia de Laming Frapand Wester Burngs/Ramawel Fadilitys There was superfided postskyforeith principane in the Zoning Ordinators for this performer stee. The Zoning Administrator	has deferration that the too tend chaety resembles a greenmentel see which requires one (1) parting specs per ampliyes.	HAPTHRING AND SCHEENING:	DETERMINATION OF BUTTER VARD REQUIRENCES: *Pre S-CLIO) of this Ordenson, all outing holdlice shall have a minimum. Type Press (5 Buffer Year).	provided. (20' on each listed of the creat manners integrated or the provided from the channel executed from the channel executed from the channel executed from a factor of the channel executed from the channel of th		7.								
REQUIRED		POR ONE (1) EMPLOYEE ONE (1) PARIEND SPACE NO LOADENG SPACES	NEQUINED			VBGETATION TO REMAIN										
REQUIRED		UCDNO SE NG SPACO				E CL										

